

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

CHARLES A. LIEDER LLOYD E. FUNK DAVID A. BARKER

Filed: April 21, 2000

Serial No.: 09/556,852

For: Gasoline-Oxygenate Blend And

Method Of Producing The Same

Group Art Unit: 1714

Examiner: M. Medley

CD43/12

AS

COPY OF PAPERS ORIGINALLY FILED

Attorney Docket No.: 013129/00025

STATEMENT UNDER 37 C.F.R. § 1.97 (e)(2)

Assistant Commissioner of Patents BOX Non-Final Amendment Washington, D.C. 20231

Dear Sir:

In accordance with 37 C.F.R. § 1.97 (e)(2), Applicant hereby submits the following statement:

No item of information contained in the Supplemental Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to Applicant's knowledge, no item of information contained in the Supplemental Information Disclosure Statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the Supplemental Information Disclosure Statement.

Respectfully submitted,

Date: October 12, 2001

John Wilson Jones

Registration No. 31,380

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SUPPLEMENTAL AMENDMENT AND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97 (e)(2)

Dear Sir:

This communication is in further response to the Office Action dated April 11, 2001.

- 1. <u>Citation of Prior Art.</u> Applicants bring to the attention of the Examiner U.S. Patent No. 6,290,734 B1, which issued on September 18, 2001. Attached to this communication is a Statement Under 37 C.F.R. § 1.97 (e)(2).
- 2. <u>Version With Markings to Show Changes Made.</u> It is uncertain if the Version With Markings to Show Changes Made was submitted with the Amendment dated August 24, 2001. The Amendment states that such a Version had been submitted. However, the file copy of Applicant doesn't include such a Version. Applicant therefore submits a "Clean Copy of the Claims As Amended in the Amendment Dated August 24, 2001" as well as "Version With Markings to Show Changes Made". These documents are attached.

3. <u>Examiner's Interview of June 27, 2001.</u> Applicants acknowledge the interview of June

27, 2001 that was graciously extended by Examiner Medley. The participants at the interview, in

addition to Examiner Medley, were inventor Charles A. Lieder and inventor David A. Barker.

At this interview, the scope of the active claims of the application were discussed, especially in

light of Redacted Gasoline Data from Third Party Source and Gasoline Data From a Third Party.

The salient points of the interview were set forth in detail in the Amendment filed on August 24,

2001.

CONCLUSIONS

Applicants do not believe that any additional fees are required for consideration of the

Supplemental Information Disclosure Statement or any other issues raised in this Supplemental.

To the extent Applicants are incorrect, the Commissioner is hereby authorized to charge any

additional fees to Deposit Account No. 12-1322(Our ref.013129-00025).

Applicants respectfully request the Examiner to issue a Notice of Allowance. The

Examiner is invited to telephone the undersigned should it be deemed prudent to expedite

examination of this application.

Dated: October 12, 2001

hn Wilson Jones

Respectfully submitted,

Registration No. 31,380

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.6(d)

I hereby certify that this correspondence is being transmitted to the Assistant Commissioner for Patents, BOX Non-Final Amendment, Washington, D.C. 20231, via facsimile, 703 305-7718, in accordance with 37 C.F.R.§ 1.6(d) on this 12th day of October, 2007.

John Wilson Jones



VERSION WITH MARKINGS TO SHOW CHANGES MADE

- 1 23. A process for preparing a gasoline-oxygenate blend comprising combining a blend of
- 2 <u>hydrocarbons with an alcohol</u>, blending at least two hydrocarbon streams to produce a gasoline
 - 3 wherein the resulting gasoline-oxygenate blend has the following properties:
 - 4 (a) a Dry Vapor Pressure Equivalent less than about 7.1 PSI; and
 - 5 (b) an alcohol content greater than about 5.8 volume percent.
 - 1 24. (Once Amended). The process of Claim 23 further comprising introducing ethanol
 - 2 during the blending wherein the alcohol is ethanol.
 - 1 26. (Once Amended). A process for preparing a gasoline-oxygenate blend comprising
 - 2 blending at least two hydrocarbon streams to produce a gasoline combining a blend of
 - 3 hydrocarbons with an alcohol, wherein the resulting gasoline-oxygenate blend has the
 - 4 following properties:
 - 5 (a) a Dry Vapor Pressure Equivalent less than about 7.0 PSI; and
 - 6 (b) an alcohol content greater than about 5.0 volume percent.
 - 1 27. (Once Amended) The process of Claim 26 wherein the resulting gasoline-oxygenate
 - 2 blend reduces toxic air pollutants emissions by more than about 30% alcohol is ethanol.

MARKED-UP VERSION SHOWING CHANGES

event that a plurality of gasoline-oxygenate Phase I blend recipes were made for each neat blend A-X, the corresponding gasoline-oxygenate Phase I blend recipes in Table 8 have been designated by the blend letter designation, for example A, followed by a numerical designation, for example 1, such that the gasoline-oxygenate property shown in Tables 9-10 correspond to the blend letter, and number designation, if applicable. Accordingly, Table 8, entitled "Phase I Gasoline-Oxygenate Blend Recipes," shows each gasoline-oxygenate blend recipe in terms of volume percent of the total blend after the introduction of oxygenates.

TABLE 8: PHASE I GASOLINE-OXYGENATE BLEND RECIPES

	EtOH	C4	FFB	RAFF	HOR	TOL	LCC	ALKY	LSCC	HCC
BLEND	(in terms of volume percent of the total blend) (%)									
A1	9.50	0.00	1.27	0.00	20.72	17.92	8.05	42.54	0.00	0.00
$\frac{A1}{A2}$	5.42	0.0	1.3	0.0	21.7	18.7	8.4	44.5	0.0	0.0
[B2] <u>B1</u>	9.50	0.00	0.00	15.39	16.20	9.41	0.00	23.89	10.59	15.02
B2] <u>B1</u> B2	5.42	0.00	0.0	16.1	16.9	9.8	0.0	25.0	11.1	15.7
C1	9.50	1.45	0.00	0.00	14.93	27.60	13.39	33.12	0.00	0.00
	5.42	1.43	0.00	0.0	15.6	28.8	14.0	34.6	0.0	0.0
C2	9.50	0	0.0	15.7	24.8	0	12.8	15.7	18.6	2.9
D1	5.42	0.0	0.0	16.5	25.9	0.0	13.3	16.5	19.4	3.0
D2	9.50	0.00	0.00	22.63	25.25	0.00	0.00	15.84	16.83	9.86
E1	5.42	0.00	0.00	23.6	26.4	0.0	0.0	16.6	17.6	10.3
E2	9.50	0.00	0.00	9.14	9.23	32.85	16.47	22.81	0.00	0.00
F1		0.00	0.00	9.6	9.6	34.3	17.2	23.8	0.0	0.0
F2	5.42	0.09	3.35	0.00	34.39	7.15	9.50	35.93	0.00	0.00
G1_	9.50		3.5	0.00	35.9	7.5	9.9	37.5	0.0	0.0
G2	5.42	0.1		12.49	15.48	0.00	0.09	25.61	18.55	18.19
H	9.50	0.00	0.00	19.10	8.78	19.28	11.31	9.68	20.54	0.00
I1	9.50	0.00	1.81		9.2	20.1	11.8	10.1	21.5	0.0
12	5.42	0.0	1.9	20.0		9.59	12.94	32.67	0.00	2.08
<u>J1</u>	9.50	0.00	1.45	0.00	31.77		13.5	34.1	0.00	2.2
J2	5.42	0.0	1.5	0.0	33.2	10.0	7.24	20.72	10.05	1.36
K1	9.50	0.00	0.00	20.27	17.47	13.39		21.7	10.05	1.4
K2	5.42	0.0	0.0	21.2	18.3	14.0	7.6		17.03	2.54
<u>L1</u>	9.40	0.00	0.00	23.47	16.13	7.34	13.32	10.87		2.54
L2	5.42	0.0	0.0	24.5	16.8	7.7	13.9	11.3	17.8	
M	9.50	0.00	0.00	11.67	19.10	0.18	9.96	20.27	17.20	12.13

MARKED-UP VERSION SHOWING CHANGES

N	9.72	0.00	0.72	18.33	4.15	23.20	17.42	0.00	17.33	9.21
O 1	9.79	0.00	2.71	0.00	20.57	15.97	9.11	36.26	0.00	5.68
O2	5.42	0.0	2.8	0.0	21.6	16.7	9.6	38.0	0.0	6.0
P	9.72	0.00	0.00	15.98	0.00	19.23	6.68	19.41	15.80	13.27
[Q1] Q	9.64	0.00	0.00	17.80	4.70	14.64	3.34	12.83	18.61	18.52
Q2	5.42	0.0	0.0	18.6	4.9	15.3	3.5	13.4	19.5	19.4
R1	9.59	0.00	0.00	20.52	17.36	5.33	7.23	5.79	23.87	10.22
R2	5.42	0.0	0.0	21.5	18.2	5.6	7.6	6.1	25.0	10.7
S1	9.69	0.00	0.99	11.56	0.00	26.55	14.54	36.76	0.00	0.00
S2	5.42	0.0	1.0	12.1	0.0	27.8	15.2	38.5	0.0	0.0
T	9.66	0	0	13.5	15.3	4.2	15.4	12.3	26.6	3.3
U	9.66	0	0	4.2	12.8	15.7	7.5	32.2	0	17.9
V	9.81	0	0	19.1	13.3	0	0	17.2	26.8	13.7
W	9.67	0	0	0	32	11.8	26.7	19.7	0	0
X	9.65	0	0	9.7	0	0.4	0.73	34.5	24	21.1

Each of the gasoline-oxygenate blends was tested offline using the appropriate laboratory ASTM procedure found in the Standard Test Method for Research Octane Number of Spark-Ignition Engine Fuel, ASTM D 2699, the Standard Test Method for Motor Octane Number of Spark-Ignition Engine Fuel, ASTM D 2700, the Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method), ASTM D 5191, and the Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, ASTM D 86.

As before, each blend designation shown below corresponds to the gasoline-oxygenate blend recipe shown in Table 8. For example, gasoline-oxygenate blend A1 in Table 9 corresponds to the blend recipe shown for gasoline-oxygenate blend designation A1 in Table 8. Similarly, gasoline-oxygenate blend A2 below corresponds to the gasoline-oxygenate blend designation A2 in Table 8. With these designations in mind, the following gasoline-oxygenate blend properties were determined.